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George Blumer

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BY

GEORGE DOCK, M. D.,
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Reprinted from the

New York Medical Journal

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INOCULATION
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Pamphlet

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PROFESSOR F. BLOCHMANN'S WORK ON ACCIDENTAL VACCINATION.*

By GEORGE DOCK, M. D.,

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One of the most important contributions on the danger of vaccination has been written by a layman, who is not an antivaccinationist. It is also one of the most interesting and unquestionably the most pathetic. F. Blochmann, the well known zoologist, had the experience of seeing his youngest son lose an eye as the result of accidental vaccination. He did not blame the attending physician, at least in the usual way, nor did he become an antivaccinationist. With characteristic "Forschergeist" he investigated the questions involved: Whether the result was due to pure accident, or to insufficient care on the part of the attending physician; and whether it could have been avoided. He has put the results of his experience in a pamphlet of about 90 pages. He shows that it could have been avoided, and easily, had the knowledge of the possibilities been properly brought before medical practitioners and the public. Thus, he proves that: 1. The directions for the treatment of vaccinated persons are insufficient. 2. Many physicians have a very imperfect idea of the dangers of vaccination, because special works on the subject, also those on children's diseases, etc., are too superficial. 3.

* *Ist die Schutzpockenimpfung mit allen notwendigen Kautelen umgeben? Erörtert an einem mit Verlust des einem Auges verbundenen Falle von Vaccinübertragung*, von F. Blochmann, Dr. phil. und o. ö. Professor der Zoologie in Tübingen. Mit 2 Tafeln. Tübingen. Verlag von Franz Plettzcker. 1904.

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Neither vaccine officials nor writers of popular works on medicine take sufficient pains to enlighten the public on the dangers of vaccination.

Blochmann's method was comprehensive. He first talked with medical acquaintances about the case in his own family, getting "many contradictory views, but little positive." He then studied compends of vaccination, textbooks on diseases of children, on internal medicine, encyclopædias, and systems—all were unsatisfactory. He then investigated the original records of accidental vaccination, learning much, but discovering that these cases are little known and still less used.

The case of the author's own child is in brief as follows:

Boy, born January 6, 1901. Grew well, but from the third month had slight eczema, which healed on the body but remained chronic on the face, so that the hands were kept bandaged to avoid scratching. The general health was good, but there were slight indications of rickets. On October 21, 1901, an older brother was vaccinated. Pustules developed normally, but ruptured and were protected by a bandage changed daily. November 3d or 4th the younger child began to ail, grew restless and tried to scratch itself. From the 10th to the 12th pustules developed on the face, wrists and hands, thigh, and abdomen. The whole face was swollen, the right eye tightly closed. November 13th the child managed to get one hand free, and scratched its face so that it bled profusely. The general condition as well as that of the face became alarming, and a specialist in skin diseases was called in. He pronounced the disease vaccinia. The eyes were not involved at that time. November 20th the right eye became red and swollen. Next day the ophthalmologist, Professor Schleich, found keratitis. On the 24th perforation took place, followed by panophthalmitis. A long convalescence followed, leaving the skin deformed by scars on the face, even in places where there had been no eczema. Incidentally, the woman who washed

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the bandages acquired two pustules on the wrist, diagnosed vaccinia, and leaving typical scars. The exact mode of infection in the child's case was not known. As the children were together in the daytime, casual infection could easily have taken place, and was most likely.

In discussing vaccinal injuries, Professor Blochmann shows that some are unavoidable, such as early erysipelas. Others are avoidable. A single case of this class is too many. The responsibility for the avoidable accidents he puts upon the State. Since the State carries out compulsory vaccination, which he admits is proper, it has the obligation of using all the means whereby avoidable accidents shall be prevented.

In his search of the original literature, in order to find out how many avoidable cases were known, the author limited himself to the 24 years from 1880 to 1903, during which time 140 cases of vaccinal infection were reported. In almost all, recently vaccinated children, that is, persons who could not be expected to carry out protective measures, furnishes the infectious material. In 120 cases, adults or older children were the victims, and as it appears, became infected because no efforts were made to protect them. In 61 cases in adults and older children the eyes were seriously involved, 9 resulting in severe disturbance or complete loss of vision. Mothers, nurses, and housemaids were most often affected, mothers in 65 cases, 30 involving the eyes, 9 the genitals. In 20 cases unvaccinated children were affected, some of the severest being in previously healthy children. In one, with skin previously intact, the disease was mild, but left an ugly scar. In the other 19 cases the children had eczema, the vaccinia became widespread, and death occurred in 5. In another case ulcerative keratitis followed, fortunately, as Blochmann

adds, ending fatally. The high mortality in these cases, equal to that in severe variola, is very suggestive, for of course the deaths should be ascribed to the vaccinia and not to the eczema.

It is obvious that the reported cases of accidental vaccinia represent only a fraction of all that occur. Felkin, for example, who has reported 9 cases observed in eight years, says he has seen others, but made no notes of them. It must be remembered that even in Germany, where the regulations regarding vaccination are in general so admirable, accidental vaccination, unlike accidents following vaccination, is not notifiable, and cases get into the special vaccination reports only by chance and often, as shown by the case of the author's child, very imperfectly or incorrectly described.

It is hardly possible at this time to speak more in detail of the cases, but it is worth while to follow the author further in his investigation of the cause and prevention of such accidents. His view as to the responsibility of the State is rather incomprehensible to us, who are in our own estimation the State. We are accustomed to enacting laws for innumerable purposes, but we have not yet reached the stage where we can pass and carry out far reaching laws for the protection of life and health. It, therefore, seems strange to see the subject of one despotic country quoting Professor Grassi, the subject of another monarchy, with approbation. Grassi says: "One of the fundamental functions of the State is to protect its citizens in every possible way against every possible danger."

Blochmann clearly sets forth how in Germany laudable improvements have been made in the preparation of vaccine, in order to lessen the danger of syphilis, erysipelas, and other inoculable diseases. Explicit directions have been given for

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the operation, so as to prevent secondary infection. These directions usually do prevent accidents in the vaccinated, but little has been done to prevent danger to health and life through the vaccine matter itself. No intimation is given that the vaccine lesion contains material easy to communicate to others; that fingers, towels, bandages, etc., may carry dangerous matter capable of setting up severe or even fatal disease. Blochmann thinks that the regulations should require that hands be disinfected after as well as before dressing the lesions; that the official publications, as well as others, concerning vaccination should make it clear both to the operators and the parents that certain risks may not be taken without most serious danger. So, in regard to skin diseases, the regulations advise against vaccinating when these exist, but this is often neglected, and no effort is made to protect others with skin diseases who might be exposed to the vaccinated. The climax is reached when in practice the decision is often left to the mother whose knowledge of the subject is even less than that of the official vaccinator. Much space is still given in various works to the subject of vaccinal syphilis, but this does not appear to have caused any serious accidents in Germany in the last twenty years, in striking contrast to the accidents especially studied in the present work.

Blochmann cites at length the various works that should set forth the danger and prevention of accidental vaccinia. These are all books "made in Germany," but it is obvious that other countries have no advantage in this respect. In our own, where ideas regarding vaccination are so chaotic, it seems especially useful to call attention to the matter so clearly set forth in the little book of Professor Blochmann. The cases gathered from the literature are tabulated so as

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to be easily analyzed. Thirteen pages of references make the study of originals more available than has been done in any other work on the subject. Altogether the work is one that deserves the grateful thanks of the medical profession. If it also assists in advancing the knowledge of vaccination among others, so as to improve the practice of that important protective measure and make it as perfect as possible, the author and his most unfortunate little boy will deserve places high among the roll of those who served their fellow men.

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Glochmann's work

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